

CHAPTER 1

Introduction

Adequate water resources are essential not only for basic human sustenance but also for a thriving economy that supports a high standard of living and amenities that make California a great place to live. Many areas of California are arid to semi-arid, requiring careful use of water and expensive water projects to maintain adequate supplies. Reusing treated municipal wastewater has long been practiced as one way to make efficient use of our water resources.

There are a variety of technical, health, and social issues that arise in the planning, development, regulation, and operation of water recycling projects. Through access to adequate information, sound planning and engineering practices, and appropriate regulatory standards and practices, there may be improved ability to implement successful projects that will contribute to the State's water supply and protect public health. The Recycled Water Task Force was created with the general mission of identifying ways to improve our ability to cope with these issues and making recommendations for specific actions that can be taken. This report is the product of the Task Force.

This chapter includes an overview of the Task Force and the process used to arrive at its recommendations. Chapter 2 includes an estimate of the potential for additional recycled water use in California, how it can complement our water supply, and the potential cost. The legal and regulatory framework for water recycling in California is presented in Chapter 3. The issues that have been identified by the Task Force are described in Chapter 4, and the highest priority recommendations to address these issues are presented. The remaining recommendations of the Task Force are included in Chapter 5. Implementation of the recommendations is addressed in Chapter 6.

Appendices are added as reference material, including a copy of Assembly Bill No. 331, a glossary, and abbreviations used in this report. White papers were prepared by six Task Force workgroups to provide a detailed analysis of the issues to assist the Task Force in developing its recommendations. While these white papers have not been adopted by the Task Force, they will be published separately as background information.

It will be helpful if some key terms are defined. "Recycled water" is defined in the California Water Code to mean *"water which, as a result of treatment of waste, is suitable for*



Richard Katz (r.), Chair of the Task Force, conducts the final meeting of the Task Force, assisted by Jonas Minton, Co-Vice Chair (center).

Water Recycling - *This is the process of treating wastewater for beneficial use, storing and distributing recycled water, and the actual use of recycled water. It is also the reuse of water through the same series of processes, pipes, or vessels more than once by one user, wherein the effluent from one use is captured and redirected back into the same use or directed to another use within the same facility of the user. This form of recycling, often without treatment between uses, is common in industrial facilities, such as cooling towers.*

Recycled Water or Reclaimed Water

This is wastewater that is suitable for a beneficial use as a result of treatment. The degree of treatment provided for recycled water depends on the quality of water needed for the specific beneficial use and for public health protection and may include effluent from Primary Wastewater Treatment, Secondary Wastewater Treatment, Tertiary Wastewater Treatment, or Advanced Treatment.

a direct beneficial use or a controlled use that would not otherwise occur.” For the present purposes we can simplify this to mean wastewater that has been treated to a quality that is suitable to use the water again. This could include both agricultural return waters and municipal wastewater; however, it appears that the legislative intent of the Task Force is to focus on the reuse of treated municipal wastewater. “Reclaimed water” and “reclaimed wastewater” are other terms in common use equivalent to recycled water.

In recent years “water recycling” has come to be an umbrella term encompassing the process of treating wastewater, storing and distributing the recycled water, and the actual use of the recycled water. “Water reclamation” and “wastewater reclamation and reuse” are other equivalent terms. In 1995, provisions of the Water Code, Fish and Game Code, Health and Safety Code, and other statutes were amended to replace terms such as wastewater “reclamation” and “reclaimed water” with “water recycling” and “recycled water.” This legislation was intended to enhance public acceptance of recycled water supplies.

RECYCLED WATER TASK FORCE

The creation of the Recycled Water Task Force was called for in Assembly Bill No. 331 (Goldberg), which was passed by the California Legislature and approved by Governor Davis on October 7, 2001 (Water Code Section 13578). The text of the bill is in Appendix A. As directed in the bill, the Task Force was convened by the California Department of Water Resources (DWR). However, the Task Force has functioned as a cooperative effort of the three State agencies primarily responsible for planning and regulating water supply, including the State Water Resources Control Board (SWRCB) and the Department of Health Services (DHS). The Task Force is chaired by the SWRCB Member Richard Katz. The general objective of the Task Force is to advise DWR and report to the Legislature by identifying the opportunities for increasing the use of recycled water and identifying the constraints and impediments to increasing the use of recycled water. The Task Force must report to the Legislature no later than July 1, 2003.

The Task Force is composed of 40 members representing federal, State, and local governmental and private sector entities, environmental organizations, University of California, and public interest groups. The Task Force is composed of experts on the safe and beneficial uses of recycled water, including producers, suppliers, and users of recycled water, regulators, and representatives from environmental organizations, industry, and the public. The composition of the Task Force includes categories specified in AB 331 as well as additional members included to represent a broad range of viewpoints and expertise. The numbers of members representing various categories are listed below:

- 12 - State and federal government
- 2 - County health officials
- 14 - Local public agencies (water, wastewater, water recycling)
- 3 - Agency and industry associations

- 1 - University of California
- 4 - Public interest organizations and the public
- 2 - Private industry
- 2 - Investor-owned water utilities

In addition, over 40 people assisted the Task Force as staff and members of various workgroups of the Task Force. The names of the Task Force and workgroup members and staff are listed at the beginning of the report.

The first meeting of the Task Force was held on April 3, 2002. Its eighth and final meeting was held on May 13, 2003.

To accomplish the Task Force mission, six workgroups were created to address specific issue areas in depth and to report back to the Task Force. Twenty-two meetings were held by these workgroups.

A Web site was created for the Task Force to provide public access to its work and schedule. All meetings of the Task Force and workgroups were publicly noticed and open for public participation. In addition, three public discussion sessions were held.

FOCUS OF TASK FORCE

As a rationale for the work of the Task Force, AB 331 cites two goals set forth in other documents. The first is a statewide goal to recycle a total of 700,000 acre-feet of water per year by the year 2000 and 1,000,000 acre-feet of water per year by the year 2010 (Section 13577, Water Code). The second is a recommendation of Governor Davis' Advisory Drought Planning Panel (Panel) Critical Water Shortage Contingency Plan. That recommendation is, "In the interest of implementing the CALFED water use efficiency program (water conservation and water recycling actions) as quickly as possible, the Panel recommends that DWR maximize use of grants, rather than capitalization loans, to bring local agencies up to the base level of efficiency contemplated in the CALFED Record of Decision. The Panel recognizes that this recommendation would correspondingly accelerate the need for an additional source of State financial assistance for the water use efficiency program."

To address these goals, the Task Force is required by AB 331 to identify and report to the Legislature on opportunities for increasing the use of recycled water. It also must identify constraints and impediments, including the level of State financial assistance available for project construction. The bill further specified six areas for investigation:

1. How to further the use of recycled water in industrial and commercial applications, including the applicability of various requirements for prevention of cross-connections between potable and nonpotable water systems.
2. Changes in the Uniform Plumbing Code that are appropriate to facilitate the use of recycled water in industrial and commercial settings and recommendations to the California Building Standards Commission to effect those changes.

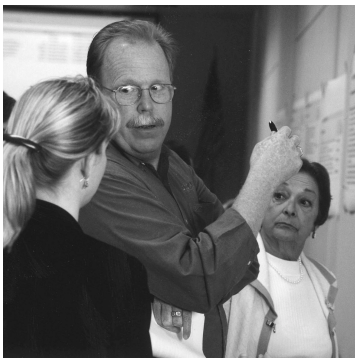
Chair of the Task Force, Richard Katz (r.), assisted by facilitator Eric Schockman (center) and David Spath, Co-Vice Chair.





Kevin Reilly (Deputy Director DHS Prevention Services), Kathy Fletcher (Deputy Secretary for External Affairs, Cal/EPA), Art Baggett (Chair, SWRCB) participating in final Task Force meeting.

Suzanne Arena, Bob Reed, and Muriel Watson discuss Task Force priorities.



Accompanied by fellow Task Force members Ane Deister (l.) and William VanWagoner (r.), the Public Information, Education, and Outreach Workgroup Co-chair Herman Collins addresses the Task Force.



3. Changes in State statutes or the current regulatory framework at the State and local level that are appropriate to increase the use of recycled water for commercial laundries and toilet and urinal flushing in structures and financial incentives to help offset the cost of retrofitting structures.
4. The need to reconvene the California Potable Reuse Committee established by DWR in 1993 or to convene a successor committee to update the committee's finding that planned indirect potable reuse of recycled water by augmentation of surface water supplies would not adversely affect drinking water quality if certain conditions were met.
5. The need to augment State water supplies using water use efficiency strategies identified in the CALFED Bay-Delta Program, including ways to coordinate with CALFED to assist local communities in educating the public with regard to the statewide water supply benefits of local recycling projects and the level of public health protection ensured by compliance with State health standards.
6. Impediments or constraints, other than water rights, related to increasing the use of recycled water in applications for agricultural, environmental, or irrigation uses.

While the report is to be delivered to the Legislature, the Task Force is not confined to recommendations requiring legislative action. The Task Force has investigated actions that can be taken at all levels of government, as well as by nongovernmental organizations.

WORKGROUPS

Early in the deliberations of the Task Force over 85 issues were suggested for investigation. It was necessary to create workgroups to be able to do the fact-finding and deliberate on potential alternative recommendations to bring to the Task Force for its consideration. The workgroups provided an opportunity for focused discussion not only by interested Task Force members but also by persons outside of the Task Force having special interests and expertise.

Six issue areas were established for focus by workgroups:

1. Funding / CALFED coordination
2. Public information, education, and outreach
3. Plumbing code / cross-connection control
4. Regulations and permitting
5. Economics of water recycling
6. Science and health / indirect potable reuse

Each workgroup was given a charge by the Task Force related to its issue area. The workgroups were intended to review all of the issues raised within their issue areas, select priority issues for in-depth analysis, and make recommendations to address the priority issues. The workgroups narrowed the list of potential issues to a few that appeared to be of highest priority so that within the limited time frame of the Task Force sufficient background information could be gathered to develop meaningful recommendations. The workgroups drafted "white papers," which contain the background information, issue analysis, and workgroup recommendations to the Task Force. The white papers were the foundation for further deliberation by the Task Force members but were not adopted by the Task Force. In addition, the workgroups provided expert presentations to the Task Force. The white papers will be published separately and will be available to the public.